

sub
C1

1 22. (Newly added) A method for allocating bits to encode each frame of an
2 image sequence, each of said frame having at least one object, said method
3 comprising the steps of:
4 (a) determining a target frame bit rate for the frame; and
5 (b) allocating said target frame bit rate among the at least one object,
6 wherein said allocating step comprises the step of allocating said target frame
7 bit rate in accordance with a target object bit rate for the at least one object.

1 23. (Newly added) The method of claim 22, wherein said target object bit rate for
2 the at least one object is selected in accordance with a mean absolute differences
3 (Mad) of said object.

1 24. (Newly added) The method of claim 22, wherein said target object bit rate is
2 adjusted in accordance with a measure of a buffer fullness.

1 25. (Newly added) The method of claim 22, wherein said target object bit rate is
2 allocated to code a syntax information, a motion information, and a shape
3 information of the object.

1 26. (Newly added) The method of claim 25, wherein said bit allocation to said
2 shape information of an object is adjusted.

1 27. (Newly added) The method of claim 22, further comprising the step of:
2 (c) generating a quantizer scale for said at least one object in accordance
3 with said target object bit rate.

1 28. (Newly added) The method of claim 27, further comprising the step of:
2 (d) encoding said at least one object with said quantizer scale.

1 29. (Newly added) Apparatus for encoding each frame of an image sequence, said
2 frame having at least one object, said apparatus comprising:

sub
B1

3 a motion compensator for generating a predicted image of a current frame;
 4 a transform module for applying a transformation to a difference signal
 5 between the current frame and said predicted image, where said transformation
 6 produces a plurality of coefficients;
 7 a quantizer for quantizing said plurality of coefficients with at least one
 8 quantizer scale; and
 9 a controller for selectively adjusting said at least one quantizer scale for a
 10 current frame in response to a target object bit rate for the at least one object.

Sub. C1 30. (Newly added) The apparatus of claim 29, wherein said target object bit rate
 2 for the at least one object is selected in accordance with a mean absolute
 3 differences (Mad) of said object.

31. (Newly added) The apparatus of claim 29, wherein said target object bit rate is
 2 derived from a target frame bit rate.

Sub. C2 32. (Newly added) A computer-readable medium having stored thereon a
 2 plurality of instructions, the plurality of instructions including instructions
 3 which, when executed by a processor, cause the processor to perform the steps
 4 comprising of:
 5 (a) determining a target frame bit rate for the frame; and
 6 (b) allocating said target frame bit rate among the at least one object,
 7 wherein said allocating step comprises the step of allocating said target frame bit
 8 rate in accordance with a target object bit rate for the at least one object.

33. (Newly added) The computer-readable medium of claim 32, wherein said
 2 target object bit rate for the at least one object is selected in accordance with a
 3 mean absolute differences (Mad) of said object.

34. (Newly added) The computer-readable medium of claim 32, wherein said
 2 target object bit rate is adjusted in accordance with a measure of a buffer fullness.